



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/555,022	05/23/2000	TUIJA HURTTA	PM270654	8864
909	7590	12/04/2003	EXAMINER	
PILLSBURY WINTHROP, LLP P.O. BOX 10500 MCLEAN, VA 22102			HA, YVONNE QUY M	
			ART UNIT	PAPER NUMBER
			2664	9
DATE MAILED: 12/04/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/555,022

Applicant(s)

HURTTA ET AL.

Examiner

Yvonne Q. Ha

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: the acronym PDP needs to define as "Packet Data Protocol". Appropriate correction is required.

Claim Objections

2. Claims 1-25 are objected to because of the following informalities: the word "characterized" on page 22-26 does not correspond to the U.S. practice. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 13, 19-21, 24, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Huotari et al. (US Patent 6,044,264).

Referring to claim 1, Huotari discloses a method for providing a packet-switched network user (figures 2, 6, col. 6, 24-28, data services including virtual private network) with a service via the intelligent network (figure 6, i.e. SCP function), the method comprising the steps of receiving the network registration of a user in the packet network (col. 3, lines 18-20), establishing a session for routing functionality of packets originating from and terminating at the user (col. 3, lines 33-40); characterized by forming for the session a control record, by which

Art Unit: 2664

event management is controlled during the session (col. 3, lines 47-53) and which has a functional connection to at least one service control function of an intelligent network service (col. 3, lines 60-61); and defining at least one of the session events as an intelligent network event to the control record (col. 4, lines 1-6, trigger with actual IN service), the encounter of which causes the use of intelligent network control principles (col. 4, lines 6-9).

Referring to claim 2, Huotari discloses all aspects of the claimed invention and further teaches modelling the session by a state model (col. 8, lines 35-40).

Referring to claim 3, Huotari discloses all aspects of the claimed invention and further teaches maintaining information on at least one intelligent network event in subscriber information (col. 6, lines 36-51); searching the information from the register including subscriber information when forming the control record (col. 6, lines 36-51); and adding the intelligent network events in the subscriber information as intelligent network events of the session (col. 6, lines 36-51, col. 7, lines 6-12).

Referring to claim 4, Huotari discloses all aspects of the claimed invention and further teaches maintaining at least one intelligent network event in the node serving the user; and adding the intelligent network events maintained in the node as intelligent network events of the session (col. 7, lines 6-12; lines 22-25).

Referring to claim 13, Huotari discloses all aspects of the claimed invention and further teaches defining the allocation of logical and physical connections during the session as an intelligent network event of the control record (figure 4, reference 8,9 SCP is the logical layer for IN; col. 7, lines 35-39, the actual connection MOC to MTC is the physical connection).

Referring to claim 19, Huotari discloses an application part (AP) to establish and maintain a session for routing functionality of the packets originating from and terminating at a user (col. 5, lines 51-67; col. 7, lines 35-37); characterized in that the application part (AP) (i.e. SCP) is arranged to form a control record for the session in such a manner that at least one of the session events is defined in the control record as an intelligent network event (col. 6, lines 29-35; col. 7, lines 35-37), the encounter of which causes the use of intelligent network control principles (col. 7, lines 35-37); the node further comprises session management means (BSM) for detecting the encounter with the intelligent network event (col. 8, lines 26-31); the application part (AP) (i.e. SCP) is arranged to use the intelligent network control principles in response to the encounter with the intelligent network event (col. 8, lines 33-37); and the connection part (CP) (i.e. CC-call control) is arranged to convey messages between the intelligent network and the application part (col. 8, lines 39-43); packet network node (SGSN, GGSN) (figure 2, i.e. VMSC as serving and GMSC as gateway) comprising a connection part (CP) (i.e. CC-call control) to transfer packets and set up a connection to the packet network (col. 7, lines 35-39).

Referring to claim 20, the application part (AP) (i.e. SCP) is arranged to obtain the intelligent network events defined in the subscriber information (col. 6, lines 29-35), and the session management means (BSM) are arranged to detect the encounter with the intelligent network events (col. 8, lines 26-31).

Referring to claim 21, the network node comprises a memory part (MP) (i.e. VLR stored subscriber profiles), in which at least one intelligent network event is defined (col. 8, lines 24-25,

Art Unit: 2664

a trigger key as an event); and the session management means (BSM) are arranged to detect the encounter with an intelligent network event (col. 8, lines 26-31).

Referring to claim 24, it is a serving support node of the packet radio network (SGSN) (i.e. VMSC serving switch; figure 5, col. 8, lines 26-31)

Referring to claim 25, it is a gateway support node of the packet radio network (GGSN) (i.e. GMSC gateway switch; figure 5, col. 8, lines 44-55)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-8, 14-18, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huotari et al. (US Patent 6,044,264) in view of Monrad et al. (US Patent 6,438,122).

Referring to claims 5, 15, and 22, Huotari discloses all aspects of the claimed invention but failed to teach GPRS attach of the user as an IN event of the control record. However, Monrad discloses a GPRS system provides packet switched connections through a network where an LLC layer is established when mobile activated PDP context with a QoS service (col. 4, lines 44-52). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Huotari creating IN services in a packet switch with Monrad GPRS. Since GPRS is a service provides packet switched connections between end users and PSTN networks, the teaching of Monrad using IN services to incorporate in the basic network would make implementation and controlling of services faster and more flexible.

Art Unit: 2664

Services could be made independent by moving the service control out from the switching exchange into a separate functional unit of the IN network. It is well known in the art.

Referring to claims 6, 7, 17, and 23, Huotari discloses all aspects of the claimed invention but failed to teach defining the PDP context activation/deactivation, modification as intelligent network events of the control record. However, Monrad discloses the handling of logic links for a mobile and any SGSN at PDP context activation/deactivation (col. 2, lines 3-5). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Huotari creating IN services in a packet switch with Monrad GPRS. Since GPRS is a service provides packet switched connections between end users and PSTN networks, the teaching of Monrad using IN services to incorporate in the basic network would make implementation and controlling of services faster and more flexible. Services could be made independent by moving the service control out from the switching exchange into a separate functional unit of the IN network. The logic link of the packet protocol could be defined with an independent set of link variable per service so as to allow independent handling of different services within the link. It is conventional to have different services on a same logic link for efficiency.

Referring to claim 8, Huotari discloses all aspects of the claimed invention and further teaches defining the packet routing as an intelligent network event of the control record (col. 7, lines 50-60).

Referring to claim 14, Huotari discloses all aspects of the claimed invention and further teaches receiving a certificate message from the intelligent network, which message includes a public key; and authenticating the user with the public key (col. 7, lines 22-34, i.e. trigger key is

Art Unit: 2664

unique to each mobile, and allocation of service code for the IN service) but failed to teach GPRS attach of the user as an IN event of the control record. However, Monrad discloses a GPRS system provides packet switched connections through a network where an LLC layer is established when mobile activated PDP context with a QoS service (col. 4, lines 44-52). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Huotari creating IN services in a packet switch with Monrad GPRS. Since GPRS is a service provides packet switched connections between end users and PSTN networks, the teaching of Monrad using IN services to incorporate in the basic network would make implementation and controlling of services faster and more flexible. Services could be made independent by moving the service control out from the switching exchange into a separate functional unit of the IN network. It is well known in the art.

Referring to claim 16, Huotari discloses method for providing a packet-switched network user with a service via the intelligent network (figures 2, 6, col. 6, 24-28, data services including virtual private network), which control record can be modeled by a state model and which has a functional connection to at least one service control function of an intelligent network service (col. 8, lines 35-40) but failed to teach activating a PDP context to convey data packets, the event management of the PDP context is controlled, , and by defining at least one of the PDP context events as an intelligent network event to the control record, which event causes the use of intelligent network control principles. However, Monrad discloses the handling of logic links for a mobile and any SGSN at PDP context activation/deactivation (col. 2, lines 3-5). Monrad also discloses a GPRS system provides packet switched connections through a network where an LLC layer is established when mobile activated PDP context with a QoS service (col. 4, lines 44-

Art Unit: 2664

52). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Huotari creating IN services in a packet switch with Monrad GPRS. Since GPRS is a service provides packet switched connections between end users and PSTN networks, the teaching of Monrad using IN services to incorporate in the basic network would make implementation and controlling of services faster and more flexible. Services could be made independent by moving the service control out from the switching exchange into a separate functional unit of the IN network. The logic link of the packet protocol could be defined with an independent set of link variable per service so as to allow independent handling of different services within the link. It is conventional to have different services on a same logic link for efficiency.

Referring to claim 18, Huotari discloses all aspects of the claimed invention and further teaches defining the allocation of logical and physical connections during the session as an intelligent network event of the control record (figure 4, reference 8,9 SCP is the logical layer for IN; col. 7, lines 35-39, the actual connection MOC to MTC is the physical connection).

5. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huotari et al. (US Patent 6,044,264) in view Monrad et al. (US Patent 6,438,122) and in further view of Yagel et al. (US Patent 6,366,657).

Referring to claims 9-10, Huotari and Monrad disclose all aspects of the claimed invention but failed to teach requesting a report from IN on a relating condition of a criterion, initializing/maintaining counter, increasing the counter in response to the transferred packet; checking whether the condition given to the criterion is fulfilled. However, Yagel discloses a management information base builder toolkit (figure 2) with IN nodes, SCP and a service

Art Unit: 2664

management system (including counter) to manage logic execution environment (col. 3, lines 12-20, lines 35-38). Service commissioning environment, operational support and IN components are part of the management logic execution (col. 5, lines 1-6). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Huotari creating IN services in a packet switch with Monrad GPRS and Yagel network management system including commissioning, operation and IN components monitoring. New services such as IN and SCE related to deploying a new service, which need support in monitoring and maintaining. The teaching of Yagel master management system provides access at various levels of management within the network, which includes managing the network resources, access, operations of the telecommunication services.

6. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huotari et al. (US Patent 6,044,264) in view Yagel et al. (US Patent 6,366,657) and in further view of Nakagawa (US Patent 5,583,918).

Referring to claims 11 and 12, Huotari discloses all aspects of the claimed invention but failed to teach receiving a charging message from the intelligent network, which message includes charging criteria; maintaining the counter; initializing said counter; increasing the counter in response to the transferred packet, and price comparison; And forming a charging record on the basis of the charging criteria and the value of the counter. However, Yagel discloses a management information base builder toolkit (figure 2) with IN nodes, SCP and a service management system (including counter) to manage logic execution environment (col. 3, lines 12-20, lines 35-38). Service commissioning environment, operational support and IN components are part of the management logic execution (col. 5, lines 1-6). In addition,

Art Unit: 2664

Nakagawa teaches a prepaid platform on service management unit (figure 2, references 32,10, 38, credit line check and balance; col. 3, lines 37-51; col. 6, lines 1-10). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Huotari creating IN services in a packet switch with Yagel network management system including commissioning, operation and IN components monitoring. New services such as IN and SCE related to deploying a new service, which need support in monitoring and maintaining and Nakagawa prepaid platform on service management unit. The teaching of Yagel master management system provides access at various levels of management within the network, which includes managing the network resources, access, operations of the telecommunication services. Adding the prepaid platform into the network management is well known in the art (i.e. a system is needed to track of billing and fraud of using prepaid card).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Burr et al. (US Patent 6,510,216) discloses IN provisioning system
- Kojima et al. (US Patent 6,058,412) discloses service management system and process control system for IN
- Melen (US Patent 6,412,003) discloses system for accessing services


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvonne Q. Ha whose telephone number is 703-305-8392. The examiner can normally be reached on Monday-Friday 7a.m.-4p.m. Eastern.

Art Unit: 2664

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

YQH



WELLINGTON CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600